

REMARKS

In view of the above amendments and the following remarks, reconsideration of the rejections and further examination are requested. Upon entry of this amendment, the specification is amended, the abstract is amended, claims 1-5, 7, 10, 13, 15, 19, 20, 24 and 25 are amended, leaving claims 1-29 pending with claims 1 and 24 being independent. No new matter has been added.

Rejections Under 35 U.S.C. §101

Claims 24-29 have been rejected under 35 U.S.C. §101 as not falling within one of the four statutory categories of invention.

Independent claim 24 has been amended to overcome this rejection. In particular, claim 24 now recites that the speech recognition dictionary creation method for creating a speech recognition dictionary uses a speech recognition dictionary creation device including an abbreviated word generation unit and a vocabulary storage unit.

Rejections Under 35 U.S.C. §102(b)

Claims 1, 2, 15, 24, 25 and 28 have been rejected under 35 U.S.C. §102(e) as being anticipated by Lekutai (U.S. Patent Publication 2005/0240391).

Applicants submit that the claims as now pending overcome the cited prior art.

Claim 1

Amended independent claim 1 recites a speech recognition dictionary creation device including an abbreviated word generation unit which generates an abbreviated word of a recognition object that includes constituent words, based on a generation rule, out of candidates including the abbreviated word of the recognition object generated by concatenating one of i) the constituent words into which the recognition object is divided and which are not adjacent each other, and ii) a part of the constituent words into which the recognition object is divided, and a vocabulary storage unit which stores, as the speech recognition dictionary, the generated abbreviated word together with the recognition object and an utterance probability of the

abbreviated word based on either the generated rule or ease of pronunciation of the abbreviated word.

The invention, as recited in claim 1, makes it possible to efficiently generate a speech recognition dictionary providing a high recognition rate even for an abbreviated paraphrase of a word. Such a device is not disclosed nor rendered obvious by the cited prior art.

In particular, Lekutai fails to disclose a vocabulary storage unit which stores, as the speech recognition dictionary, the generated abbreviated word together with the recognition object and an utterance probability of the abbreviated word based on either the generated rule or ease of pronunciation of the abbreviated word. Additionally, there is no reasoning in the prior art to modify Lekutai, such that it would have rendered claim 1 obvious.

Therefore, Applicants submit that independent claim 1 and its dependent claims are allowable over the cited prior art.

Claim 24

Independent claim 24 and its dependent claims are allowable over the cited prior art for similar reasons to those set forth above. Specifically, independent claim 24 recites a speech recognition dictionary creation method for creating a speech recognition dictionary including generating, with use of the abbreviated word generation unit, an abbreviated word of a recognition object that includes one or more constituent words based on a rule that takes into account ease of pronunciation, and registering, into the speech recognition dictionary, the generated abbreviated word, with use of the vocabulary storage unit, together with the recognition object.

Rejections Under 35 U.S.C. §103(a)

Claims 3-14, 16-23, 26, 27 and 29 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Lekutai in view of Hiroyuki et al. (JP 2002-041081).

Applicants submit that the combination of Lekutai and Hiroyuki fails to render independent claims 1 and 24 obvious, let alone the above dependent claims.

As stated above Lekutai fails to disclose a vocabulary storage unit which stores, as the

speech recognition dictionary, the generated abbreviated word together with the recognition object and an utterance probability of the abbreviated word based on either the generated rule or ease of pronunciation of the abbreviated word. Hiroyuki fails to overcome this deficiency. Arguably, Hiroyuki teaches taking into account analysis likelihood of an inputted character string and reading the likelihood based on the correctness of the pronunciation of a represented character string. However, Hiroyuki fails to disclose a probability taking into account the "ease of pronunciation".

Furthermore, as the Examiner has suggested, the combination of Lekutai and Hiroyuki would divide a recognition object letter-by-letter and generate an abbreviated word out of the divided objects by combining two or more letters which are not adjacent to each other. However, the abbreviated word that would be generated by Lekutai or Hiroyuki, or the combination thereof, would be merely a division and combination on a letter-by-letter basis.

The present invention, as recited in claim 1 generates an abbreviated word, taking ease of pronunciation into account, and generates a speech recognition dictionary available as likelihood of speech recognition. In other words, since an abbreviated word is created in order to shorten the uttering of a compound word, one of the keys for the abbreviated word to be used is easy pronunciation. The abbreviated word generated by the combination of Lekutai and Hiroyuki fails to take this element into account, which will cause an explosion of possibilities and lead to a bloated speech recognition dictionary and a lower speech recognition rate.

Additionally, Hiroyuki (and the combination of Hiroyuki and Lekutai) neither discloses nor renders obvious a unit operable to concatenate parts of constituent words; that is, Hiroyuki fails to disclose or render obvious an abbreviated word generation unit which generates an abbreviated word of a recognition object, based on a generation rule, out of candidates including the abbreviated word of the recognition object generated by concatenating parts of the constituent words, as recited in claim 1.

Applicants submit that independent claim 24 is allowable for similar reasons. That is, the cited prior art fails to disclose or render obvious a speech recognition dictionary creation method for creating a speech recognition dictionary including generating, with the use of the abbreviated word generation unit, an abbreviated word of a recognition object that is made up of one or more

constituent words based on a rule that takes into account ease of pronunciation, and registering, into the speech recognition dictionary, the generated abbreviated word, with use of the vocabulary storage unit, together with the recognition object.

Therefore, Applicants submit that claims 1 and 24 and their respective dependent claims are allowable over the cited prior art.

Conclusion

In view of the foregoing amendments and remarks, all of the claims now pending in this application are believed to be in condition for allowance. Reconsideration and favorable action are respectfully solicited.

Should the Examiner believe there are any remaining issues that must be resolved before this application can be allowed, it is respectfully requested that the Examiner contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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